CLAIMS:

What is claimed is:

1   1.   A method of verifying a categorization of a service in a

2   taxonomy, comprising:

3   receiving a registration request, the registration request

4   including a service description and an identification of a

5   category within the taxonomy in which the service is to be

6   registered;

7   applying one or more canonical service description tests to

8   the service description to determine if the service description

9   should be registered in the category; and

10   registering the service description in the identified

11   category if a result of applying the one or more canonical

12   service description tests is that the service description should

13   be registered in the identified category.

1   2.   The method of claim 1, wherein the one or more canonical

2   service description tests identify minimum criteria for the

3   category.

1   3.   The method of claim 1, wherein registering the service

2   description in the category includes storing the service

3   description and an associated model description in a storage in

4   association with the category.

1   4.   The method of claim 1, wherein the method is implemented in

2   a service broker within at least one network.

1   5.   The method of claim 1, wherein if the result of applying the

2   one or more canonical service description tests is that the

3   service description should not be registered in the category, a

4   determination is made as to whether a request to add a new

5   category is received.

1   6.   The method of claim 5, wherein if a request to add a new

2   category is received, a determination is made as to whether to

3   add the new category, and wherein if the new category is added,

4   the service description is registered in association with the new

5   category.

1   7.   The method of claim 1, wherein the one or more canonical

2   service description tests include information identifying minimum

3   requirements of the category regarding one or more of security

4   requirements, privacy requirements and communication protocol

5   requirements.

1   8.   The method of claim 1, wherein if the result of applying the

2   one or more canonical service description tests is that the

3   service description should not be registered in the category, the

4   method further comprises:

5   searching the taxonomy for an alternate category in which

6   the service description should be registered; and

7   registering the service description in the alternate

8   category.

1   9.   The method of claim 8, wherein searching the taxonomy for an

2   alternate category includes searching one or more of sibling,

3   parent and child categories of the identified category within a

4   predetermined range of the identified category in the taxonomy.

1   10.   The method of claim 8, wherein searching the taxonomy for an

2   alternate category includes searching the taxonomy for a category

3   in which the service description meets requirements of a

4   canonical service description test associated with the alternate

5   category.

1   11. A computer program product in a computer readable medium for

2   verifying a categorization of a service in a taxonomy,

3   comprising:

4   first instructions for receiving a registration request, the

5   registration request including a service description and an

6   identification of a category within the taxonomy in which the

7   service is to be registered;

8   second instructions for applying one or more canonical

9   service description tests to determine if the service description

10   should be registered in the category; and

11   third instructions for registering the service description

12   in the identified category if a result of applying the one or

13   more canonical service description tests is that the service

14   description should be registered in the identified category.

1   12. The computer program product of claim 11, wherein the one or

2   more canonical service description tests identify minimum

3   criteria for the category.

1   13. The computer program product of claim 11, wherein the third

2   instructions for registering the service description in the

3   category includes instructions for storing the service

4   description and an associated model description in a storage in

5   association with the category.

1   14. The computer program product of claim 11, wherein the

2   computer program product is executed in a service broker within

3   at least one network.

1   15.   The computer program product of claim 11, further comprising
2   fourth instructions for determining whether a request to add a
3   new category is received, if the result of applying the one or
4   more canonical service description tests is that the service
5   description should not be registered in the category.

1   16.   The computer program product of claim 15, further comprising
2   fifth instructions for determining whether to add the new
3   category, if a request to add a new category is received, and
4   sixth instructions for registering the service description in
5   association with the new category, if the new category is added.

1   17.   The computer program product of claim 11, wherein the one or
2   more canonical service description tests includes information
3   identifying minimum requirements of the category regarding one or
4   more of security requirements, privacy requirements and
5   communication protocol requirements.

1   18.   The computer program product of claim 11, further
     comprising:
2   fourth instructions for searching the taxonomy for an
3   alternate category in which the service description should be
4   registered if the result of applying the one or more canonical
5   service description tests is that the service description should
6   not be registered in the category; and
7
8   fifth instructions for registering the service description
9   in the alternate category if an alternate category is identified
10   by execution of the fourth instructions.

1   19.   The computer program product of claim 18, wherein the fourth
2   instructions for searching the taxonomy for an alternate category
3   includes instructions for searching one or more of sibling,

4   parent and child categories of the identified category within a
5   predetermined range of the identified category in the taxonomy.

1   20.   The computer program product of claim 18, wherein the fourth
2   instructions for searching the taxonomy for an alternate category
3   includes instructions for searching the taxonomy for a category
4   in which the service description meets requirements of a
5   canonical service description test associated with the alternate
6   category.

1   21.   An apparatus for verifying a categorization of a service in
2   a taxonomy, comprising:
3   means for receiving a registration request, the registration
4   request including a service description and an identification of
5   a category within the taxonomy in which the service is to be
6   registered;
7   means for applying one or more canonical service description
8   tests to determine if the service description should be
9   registered in the identified category; and
10   means for registering the service description in the
11   identified category if the determination is that the service
12   description should be registered in the identified category.

1   22.   The apparatus of claim 21, wherein the one or more canonical
2   service description tests identifies minimum criteria for the
3   category.

1   23.   The apparatus of claim 21, wherein the means for registering
2   the service description in the category includes means for
3   storing the service description and an associated model
4   description in a storage in association with the category.

1   24.   The apparatus of claim 21, wherein the apparatus is part of

2   a service broker within at least one network.

1   25.   The apparatus of claim 21, further comprising means for

2   determining whether a request to add a new category is received

3   if the result of applying the one or more canonical service

4   description tests is that the service description should not be

5   registered in the category.

1   26.   The apparatus of claim 25, further comprising means for

2   determining whether to add the new category, if a request to add

3   a new category is received, and means for registering the service

4   description in association with the new category, if the new

5   category is added.

27.   The apparatus of claim 21, wherein the one or more canonical

service description tests includes information identifying

minimum requirements of the category regarding one or more of

security requirements, privacy requirements and communication

protocol requirements.

1   28.   The apparatus of claim 21, further comprising:

2   means for searching the taxonomy for an alternate category

3   in which the service description should be registered if the

4   result of applying the one or more canonical service description

5   tests indicates that the service description should not be

6   registered in the category; and

7   means for registering the service description in the

8   alternate category if an alternate category is identified by the

9   means for searching.

1   29.   The apparatus of claim 28, wherein the means for searching

2   the taxonomy for an alternate category includes means for

3   searching one or more of sibling, parent and child categories of

4   the identified category within a predetermined range of the

5   identified category in the taxonomy.

1   30. The apparatus of claim 28, wherein the means for searching

2   the taxonomy for an alternate category includes means for

3   searching the taxonomy for a category in which the service

4   description meets requirements of a canonical service description

5   test associated with the alternate category.